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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/052,203      | 01/16/2002  | Ken Ohmura           | 56232.16 [4989]     | 8680             |

7590 09/07/2004

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| EXAMINER |
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RODEE, CHRISTOPHER D

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1756

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/052,203 | <b>Applicant(s)</b><br>OHMURA ET AL. |  |
|                              | <b>Examiner</b><br>Christopher RoDee | <b>Art Unit</b><br>1756              |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Terminal Disclaimer***

The terminal disclaimer filed on 30 July 2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent 6,677,097 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Prosecution Reopened***

The indicated allowability of claims 1-10 and 12-20 is withdrawn in view of the newly discovered reference(s) to Horiuchi *et al.* in US Patent Application Publication 2004/0043319. Rejections based on the newly cited reference(s) follow. Prosecution on the merits is reopened based on the newly discovered reference. A rejection based on this publication follows. Additionally, an objection is lodged against claims 13, 14, 19, and 20 because of a missing word.

### ***Claim Objections***

Claims 13, 14, 18, and 19 are objected to because of the following informalities: The word "toner" is missing after "developing" in respective line 1 of each claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10 and 12-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Horiuchi *et al.* in US Patent Application Publication 2004/0043319.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Horiuchi discloses a toner having a coloring agent and toner particles, said toner particles have a matrix-domain structure, and the average of the area of a Voronoi polygon formed by the perpendicular bisecting line between the centers of gravity of domains adjacent to each other in said matrix-domain structure is from 20,000 to 120,000 mm<sup>2</sup>, and the variation coefficient of the area of said Voronoi polygon is less than or equal to 25 percent (¶ [0020]). In another embodiment the above toner has a Voronoi polygon formed by the perpendicular bisecting line between the centers of gravity of domains adjacent to each other in said matrix-domain structure is from 40,000 to 100,000 mm<sup>2</sup>, and the variation coefficient of the area of said Voronoi polygon is less than or equal to 20 percent (¶ [0021]). Horiuchi also discloses that this toner has Voronoi polygons formed by the perpendicular bisecting line between the centers of gravity of the domains adjacent to each other in said matrix-domain structure, the number ratio of Voronoi polygons having an area of at least 160,000 nm<sup>2</sup> which come into contact with the

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external circumference of said toner is from 3 to 20 percent of the total number of said domains (¶ [0024]). The reference further teaches that the average of the area of a Voronoi polygon formed by the perpendicular bisecting line between the centers of gravity of the domains in the exterior of a 1,000 nm radius circle having the center of gravity in the cross-section of said toner particle as the center is smaller than the average of the area of a Voronoi polygon formed by the perpendicular bisecting line between the centers of gravity of said domain in the interior of said circle (¶ [0023]).

Horiuchi also teaches that the toner contains a crystalline material. The reference teaches that the crystalline material constituting said domain portions is an organic compound, having a melting point. This compound is preferably a hydrocarbon having an ester group in its structure. The melting point of the crystalline materials in the toner particles of the present invention is lower than the softening point of the toner and is specifically 130 °C. or lower. The organic compounds preferably comprise an ester group in their structure and include crystalline polyester compounds (¶ [0084], document claim 19). See Toner particles 1Bk through 9Bk, 1Y to 13Y, 1M to 13M, and 1C to 13C for specific toners containing crystalline materials according to the invention. Figure 1a shows a toner having 15 domains with colorant as Domain B and crystalline material as Domain A (¶¶ [0059], [0084]).

Reference Figures 1(a), 1(b), and 2 show the exact same toner as is present in the corresponding figures of the instant application. Based on this disclosure it appears that the prior art toner has the same domain FERE diameter as well as the same domain shape factor and variation coefficients as claims. See the publications claims for other claimed features (e.g., luminance characteristics, production process, toner shape, sizes, etc.).

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Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

### ***Double Patenting***

Claims 5-9 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/011634 in view of JP 6-130723. The copending claims disclose and suggest the same toner as present in claims 5-9 of the instant application with the exception of a crystalline material as part of the toner. JP 6-130723 discloses that a toner will achieve better offset resistance, blocking resistance, and fixing properties when a polyethylene wax having a crystallinity of greater than or equal to 80 % is added to the toner having binder resin, colorant, and a wax. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the crystalline wax material of the JP reference to the toner of the copending claims in order to obtain better offset resistance, blocking resistance, and fixing properties.

This is a provisional obviousness-type double patenting rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on most weekdays from 6:00 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdr  
2 September 2004



CHRISTOPHER RODEE  
PRIMARY EXAMINER